Cypress Semiconductor Corporation
System and Method for Dynamically Generating a Configuration Datasheet
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112

| Processor 101 | ROM 103 | RAM 103 | Data Storage Device 104 |

100

| Display Device 105 | Alpha-Numeric Input 106 | Cursor Control 107 | Signal Input Ouput Comm 108 |

FIGURE 1A

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120
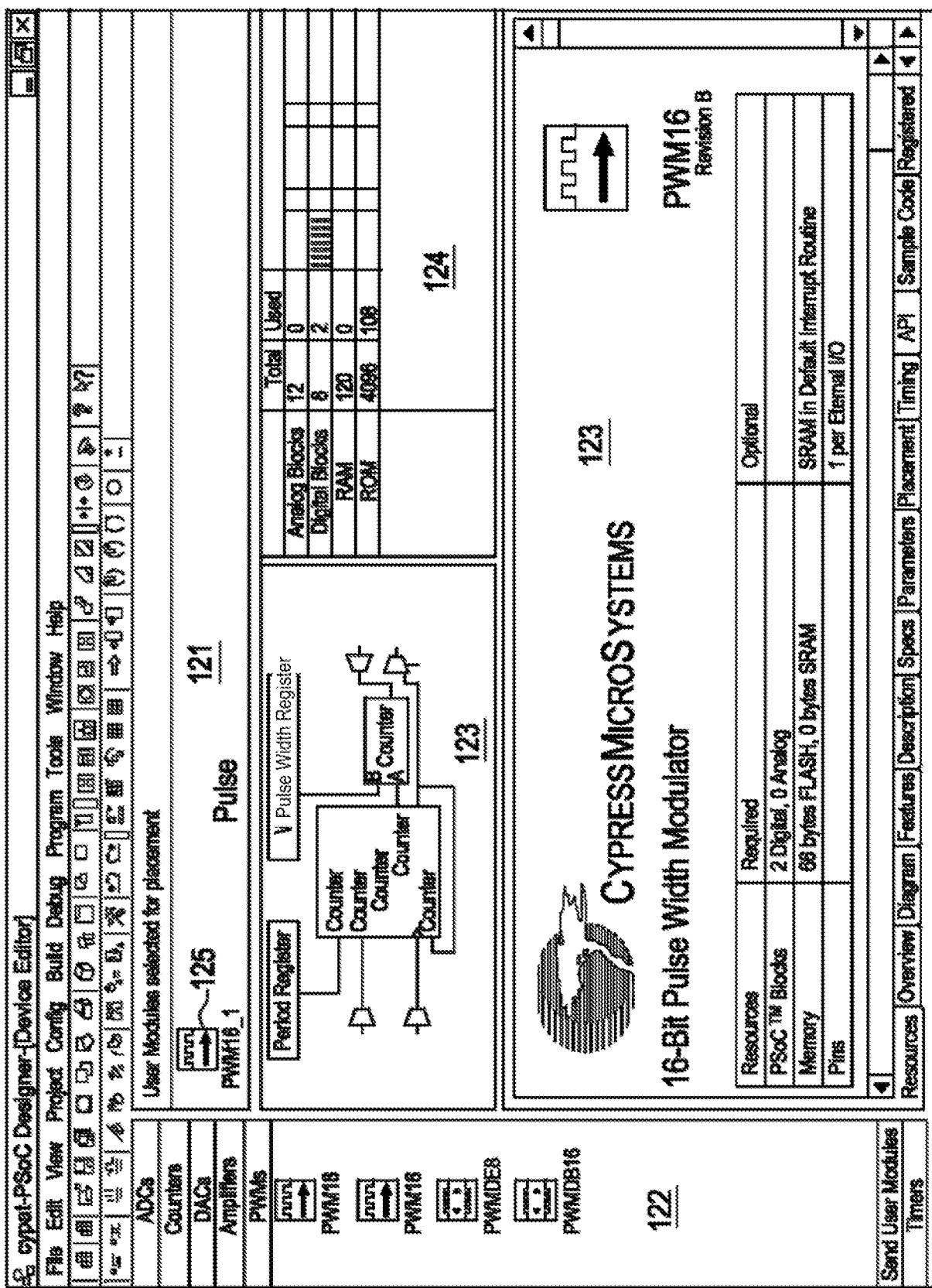
cypat-PSoC Designer-[Device Editor]

File Edit View Project Config Build Debug Program Tools Window Help

ADCs
Counters
DACs
Amplifiers
PWMs

PWM16
PWM16
PWMDB8
PWMDB16

122

User Modules selected for placement

PWM16_1

125

Pulse

121

Period Register

Counter
Counter
Counter
Counter
Counter

V Pulse Width Register

B Counter
A Counter

123

	Total	Used
Analog Blocks	12	0
Digital Blocks	8	2
RAM	120	0
ROM	4096	108

124

CYPRESSMICROSYSTEMS

16-Bit Pulse Width Modulator

123

PWM16
Revision B

Resources	Required		Optional	
PSoC™ Blocks	2 Digital, 0 Analog			
Memory	66 bytes FLASH, 0 bytes SRAM		SRAM in Default Interrupt Routine	
Pins			1 per External I/O	

Resources Overview Diagram Features Description Specs Parameters Placement Timing API Sample Code Registered

Send User Modules
Timers
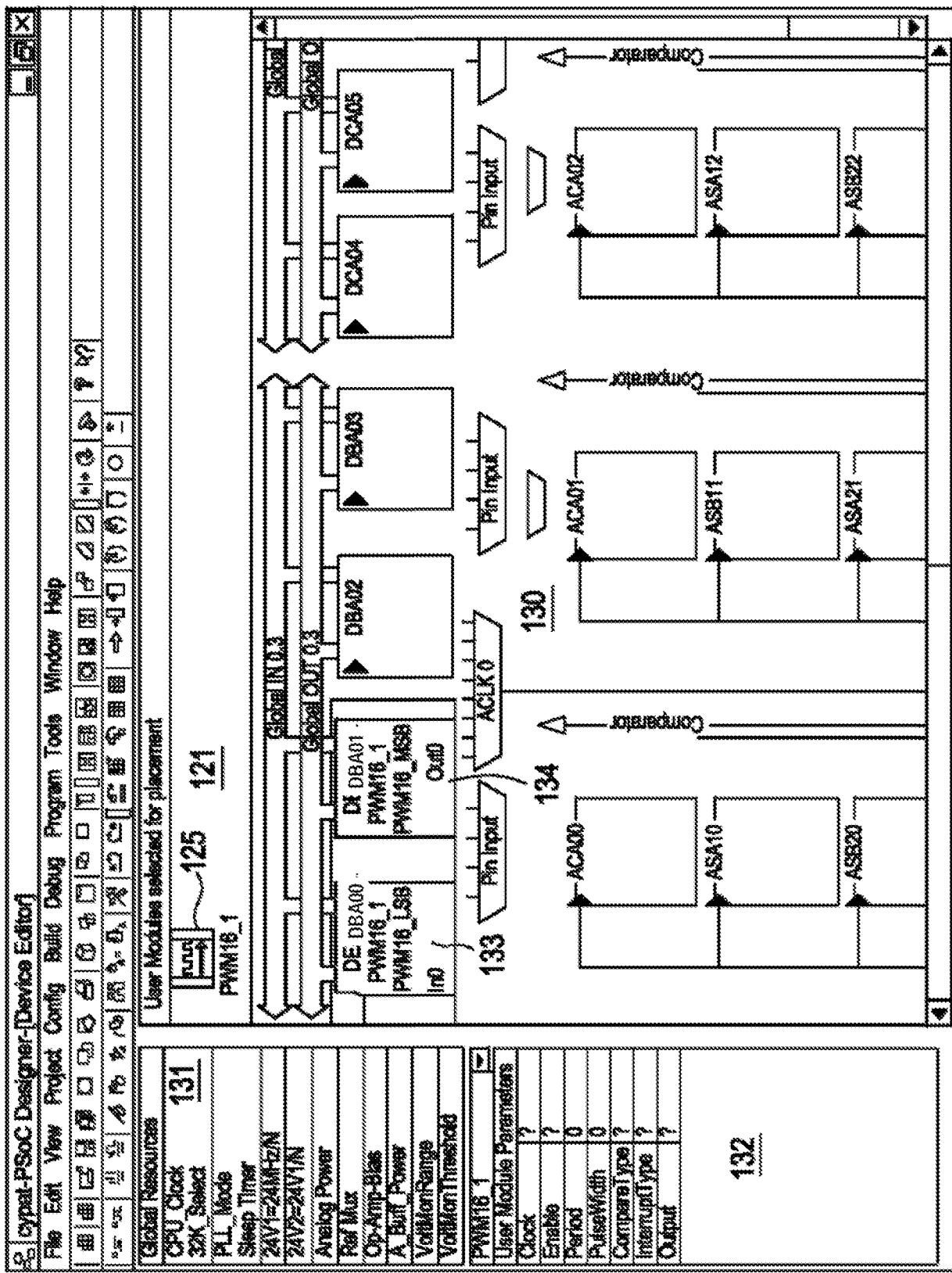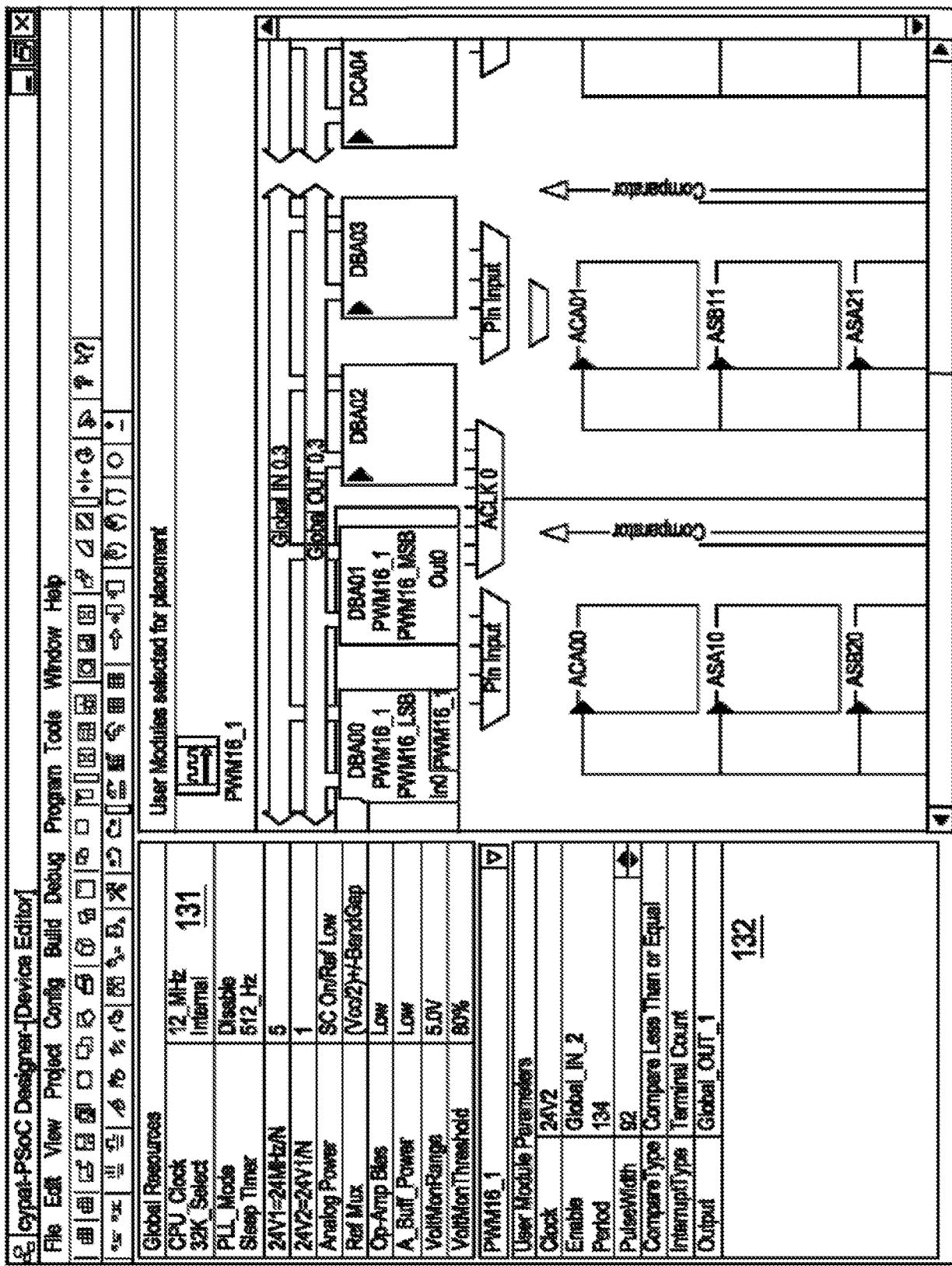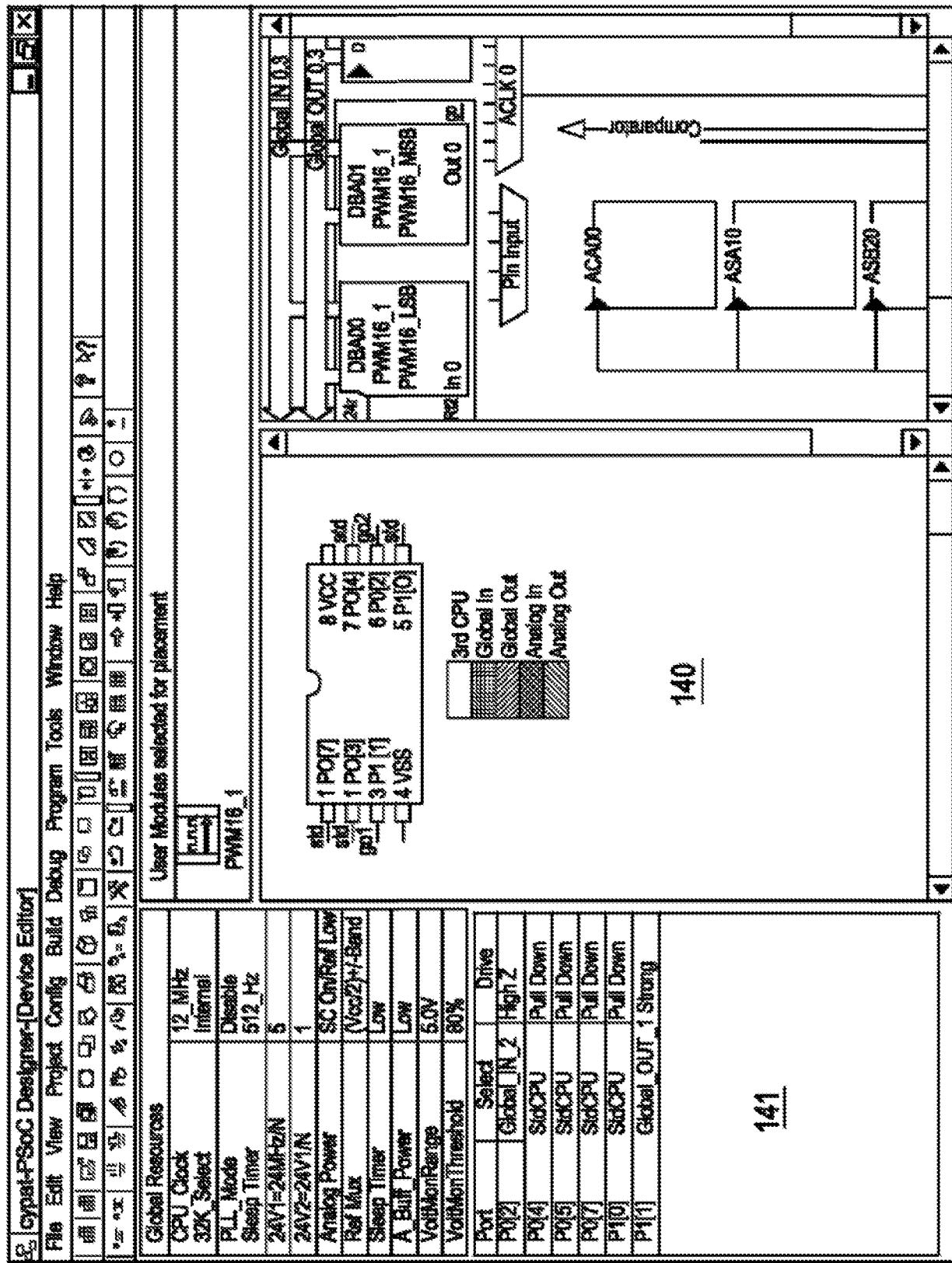
FIGURE 1B

FIGURE 1C

FIGURE 1D

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FIGURE 1E

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<u>200</u>

```
┌─────────────────────────────┐
│     Select Target Device    │ ～ 205
└─────────────────────────────┘
                │
                ▼
┌─────────────────────────────┐
│     Select User Modules     │ ～ 210
└─────────────────────────────┘
                │
                ▼
┌─────────────────────────────┐
│      Place User Modules     │ ～ 215
└─────────────────────────────┘
                │
                ▼
┌─────────────────────────────┐
│  Configure User Module and  │ ～ 220
│  Global resource Parameters │
└─────────────────────────────┘
                │
                ▼
┌─────────────────────────────┐
│     Specify Connections     │ ～ 225
└─────────────────────────────┘
                │
                ▼
┌─────────────────────────────┐
│        Specify Input        │ ～ 230
└─────────────────────────────┘
```
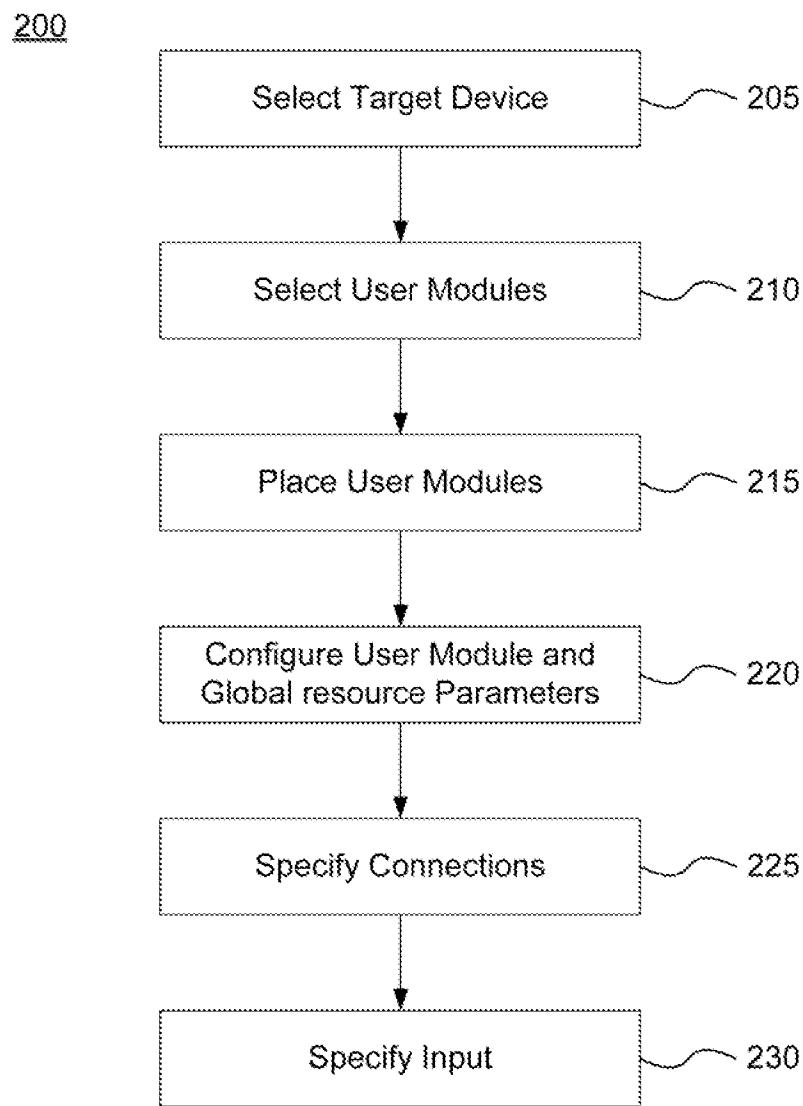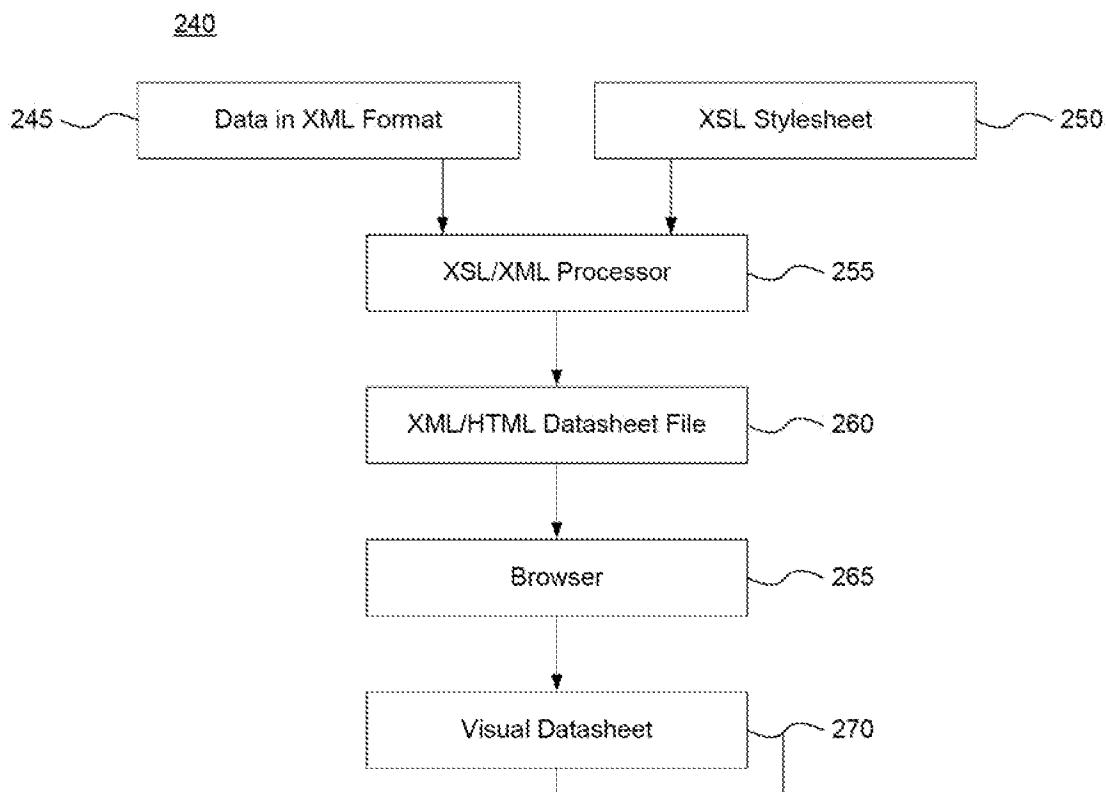
FIGURE 2A

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<u>240</u>

245 ⟶ | Data in XML Format | | XSL Stylesheet | ⟵ 250

| XSL/XML Processor | ⟵ 255

| XML/HTML Datasheet File | ⟵ 260

| Browser | ⟵ 265

| Visual Datasheet | ⟵ 270

FIGURE 2B

Cypress Semiconductor Corporation
System and Method for Dynamically Generating a Configuration Datasheet
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Cypress Docket No.: CD01174   Sheet 8 of 28
-- REPLACEMENT SHEET --

```
<PSOC_DEVICE_DB>
<PSOC_CONFIG_LIST>
<PSOC_CONFIG NAME="patent8pin2" BASE_DEICE="CY8C25123-API" SOURCE_GEN_TIME="1004277340" CONFIG_SAVE_TIME="1047273340"
CONFIG_SAVE_DATE= "FRI NOV 02 10:55:40 2001" VERSION= "2.0">
<USER_MODULE_LIST>
    <USER_MODULE NAME="PWM16" INSTANCE_NAME="PulseGenerator" VERSION="">
        <SHAPE SHAPE_TYPE="BLOCKLIST" COLOR_INDEX="0">
            <BLOCK_LIST>
                <BLOCK NAME="PWM16_LSB TYPE ="DIGITAL" LOCATION="0">
                    <REGISTER_LIST>
                        <REGISTER NAME="CONTROL_0" ADDR="23" VALUE="0"/>
                        <REGISTER NAME="DATA_0" ADDR="20" VALUE="0"/>
                        <REGISTER NAME="DATA_1" ADDR="21" VALUE="86"/>
                        <REGISTER NAME="DATA_2" ADDR="22" VALUE="5c"/>
                        <REGISTER NAME="DIG_BasicFunction" ADDR="120" VALUE="1"/>
                        <REGISTER NAME="DIG_Input" ADDR="121" VALUE="e6"/>
                        <REGISTER NAME="DIG_Output" ADDR="23" VALUE="0"/>

                    </REGISTER_LIST>
                <INPUT_LIST/>

                </BLOCK>
                <BLOCK NAME="PWM16_MSB" TYPE="DIGITAL" LOCATION="1">
                    <REGISTER_LIST>
                        <REGISTER NAME="CONTROL_0" ADDR="27" VALUE="0"/>
                        <REGISTER NAME="DATA_0" ADDR="24" VALUE="0"/>
                        <REGISTER NAME="DATA_1" ADDR="25" VALUE="0"/>
                        <REGISTER NAME="DIG_BasicFunction" ADDR="124" VALUE="21"/>
                        <REGISTER NAME="DIG_Input" ADDR="125" VALUE="36"/>
                        <REGISTER NAME="DIG_Output" ADDR="126" VALUE="5"/>

                    </REGISTER_LIST>
                <INPUT_LIST/>
```

FIGURE 3A

Cypress Semiconductor Corporation
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-- REPLACEMENT SHEET --

```
        </BLOCK>
      </BLOCK_LIST/>
      <RESOURCE_LIST/>
    </SHAPE>
    <PARAMETER_LIST>
      <PARAMETER NAME="Clock" VALUE="24V2"/>
      <PARAMETER NAME="CompareType" VALUE="Compare Less Than Or Equal"/>
      <PARAMETER NAME="Enable" VALUE="Global_IN_2"/>
      <PARAMETER NAME="InterruptType" VALUE="Terminal Count"/>
      <PARAMETER NAME="Period" VALUE="Global_OUT_1"/>
      <PARAMETER NAME="Pulse Width" VALUE="92"/>
    </PARAMETER_LIST>
  </USER_MODULE>
</USER_MODULE_LIST>
<DEVICE_DATA>
<GLOBAL_RESOURCE_LIST>
  <RESOURCE NAME="24V1=24MHz/N" VALUE="5"/>
  <RESOURCE NAME="24V2=24V1/N" VALUE="1"/>
  <RESOURCE NAME="32K_Select" VALUE="Internal"/>
  <RESOURCE NAME="A_Buff_Power" VALUE="Low"/>
  <RESOURCE NAME="Analog_Power" VALUE="SC On/Ref Low"/>
  <RESOURCE NAME="CPU_Clock" VALUE="12_MHz"/>
  <RESOURCE NAME="Op-amp Bias" VALUE="Low"/>
  <RESOURCE NAME="PLL_Mode" VALUE="Disable"/>
  <RESOURCE NAME="Ref Mux" VALUE="(Vcc/2+/-Bandgac"/>
  <RESOURCE NAME="Sleep_Timer" VALUE="512_Hz"/>
  <RESOURCE NAME="SwitchModePump" VALUE="OFF"/>
  <RESOURCE NAME="voltMonRange" VALUE="5.0V"/>
  <RESOURCE NAME="voltMonThreshold" VALUE="voltMonThreshold"/>
</GLOBAL_RESOURCE_LIST>
<RESERVED_RESOURCE_LIST>
  <RESOURCE NAME="" VALUE="" TYPE=""/>
  <RESOURCE NAME="ASR11-ASA10" VALUE="" TYPE="DIRECT_INPUT"/>
  <RESOURCE NAME="ASB13-ASA12" VALUE="" TYPE="DIRECT_INPUT"/>
  <RESOURCE NAME="ASB20-ASA21" VALUE="" TYPE="DIRECT_INPUT"/>
  <RESOURCE NAME="ASB22-ASA23" VALUE="" TYPE="DIRECT_INPUT"/>
```

FIGURE 3B

Cypress Semiconductor Corporation
System and Method for Dynamically Generating a Configuration Datasheet
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-- REPLACEMENT SHEET --

```
<RESOURCE NAME="AnalogClock_0_Select" VALUE="" TYPE="ANALOG_CLOCK_SELECT"/>
<RESOURCE NAME="AnalogClock_1_Select" VALUE="" TYPE="ANALOG_CLOCK_SELECT"/>
<RESOURCE NAME="AnalogColumn_Clock_0" VALUE="24V1" TYPE="ANALOG_COLUMNCLOCK_MUX"/>
<RESOURCE NAME="AnalogColumn_Clock_1" VALUE="24V1" TYPE="ANALOG_COLUMNCLOCK_MUX"/>
<RESOURCE NAME="AnalogColumn_Clock_2" VALUE="24V1" TYPE="ANALOG_COLUMNCLOCK_MUX"/>
<RESOURCE NAME="AnalogColumn_Clock_3" VALUE="24V1" TYPE="ANALOG_COLUMNCLOCK_MUX"/>
<RESOURCE NAME="AnalogColumn_InputMUX0" VALUE="Port_0_1" TYPE="COLUMN_INPUT"/>
<RESOURCE NAME="AnalogColumn_InputMUX1" VALUE="Port_0_4" TYPE="COLUMN_INPUT"/>
<RESOURCE NAME="AnalogColumn_InputMUX2" VALUE="Port_0_5" TYPE="COLUMN_INPUT"/>
<RESOURCE NAME="AnalogColumn_InputMUX3" VALUE="Port_0_0" TYPE="COLUMN_INPUT"/>
<RESOURCE NAME="AnalogColumn_InputSelect_1" VALUE="AnalogColumn_InputMUX_1"
    TYPE="COLUMN_INPUT_SELECT"/>
<RESOURCE NAME="AnalogColumn_InputSelect_2" VALUE="AnalogColumn_InputMUX_2"
    TYPE="COLUMN_INPUT_SELECT"/>

<RESOURCE NAME="AnalogComparatorControl_0" VALUE="" TYPE="ANALOG_COMPARATOR_CONTROL"/>
<RESOURCE NAME="AnalogComparatorControl_1" VALUE="" TYPE="ANALOG_COMPARATOR_CONTROL"/>
<RESOURCE NAME="AnalogComparatorControl_2" VALUE="" TYPE="ANALOG_COMPARATOR_CONTROL"/>
<RESOURCE NAME="AnalogComparatorControl_3" VALUE="" TYPE="ANALOG_COMPARATOR_CONTROL"/>
<RESOURCE NAME="AnalogModulator_Col_0" VALUE="None" TYPE="ANALOG_MODULATOR"/>
<RESOURCE NAME="AnalogModulator_Col_0" VALUE="None" TYPE="ANALOG_MODULATOR"/>
<RESOURCE NAME="AnalogOutBuf_0" VALUE="OFF" TYPE="ANALOG_DRIVER"/>
<RESOURCE NAME="AnalogOutBuf_1" VALUE="OFF" TYPE="ANALOG_DRIVER"/>
<RESOURCE NAME="AnalogOutBuf_2" VALUE="OFF" TYPE="ANALOG_DRIVER"/>
<RESOURCE NAME="AnalogOutBuf_3" VALUE="OFF" TYPE="ANALOG_DRIVER"/>
<RESOURCE NAME="AnalogOutBus_0" VALUE="" TYPE="ANALOG_COLUMN_OUTPUT"/>
<RESOURCE NAME="AnalogOutBus_1" VALUE="" TYPE="ANALOG_COLUMN_OUTPUT"/>
<RESOURCE NAME="AnalogOutBus_2" VALUE="" TYPE="ANALOG_COLUMN_OUTPUT"/>
```

FIGURE 3C

Cypress Semiconductor Corporation
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```
<RESOURCE NAME="AnalogOutBus_3" VALUE="" TYPE="ANALOG_COLUMN_OUTPUT"/>
<RESOURCE NAME="ComparatorBus_0" VALUE="" TYPE="ANALOG_COMPARATOR_OUTPUT"/>
<RESOURCE NAME="ComparatorBus_1" VALUE="" TYPE="ANALOG_COMPARATOR_OUTPUT"/>
<RESOURCE NAME="ComparatorBus_2" VALUE="" TYPE="ANALOG_COMPARATOR_OUTPUT"/>
<RESOURCE NAME="ComparatorBus_3" VALUE="" TYPE="ANALOG_COMPARATOR_OUTPUT"/>
<RESOURCE NAME="ComparatorClock" VALUE="" TYPE="COMPARATOR_CLOCK"/>
<RESOURCE NAME="ComparatorGate_0" VALUE="" TYPE="COMPARATOR_ENABLE"/>
<RESOURCE NAME="ComparatorGate_1" VALUE="" TYPE="COMPARATOR_ENABLE"/>
<RESOURCE NAME="ComparatorGate_2" VALUE="" TYPE="COMPARATOR_ENABLE"/>
<RESOURCE NAME="ComparatorGate_3" VALUE="" TYPE="COMPARATOR_ENABLE"/>
<RESOURCE NAME="DBA00-DBA01" VALUE="" TYPE="DIRECT_INPUT"/>
<RESOURCE NAME="DBA01-DBA02" VALUE="" TYPE="DIRECT_INPUT"/>
<RESOURCE NAME="DBA02-DBA03" VALUE="" TYPE="DIRECT_INPUT"/>
<RESOURCE NAME="DBA03-DBA04" VALUE="" TYPE="DIRECT_INPUT"/>
<RESOURCE NAME="DBA04-DBA05" VALUE="" TYPE="DIRECT_INPUT"/>
<RESOURCE NAME="DBA05-DBA06" VALUE="" TYPE="DIRECT_INPUT"/>
<RESOURCE NAME="DBA06-DBA07" VALUE="" TYPE="DIRECT_INPUT"/>
<RESOURCE NAME="Decimator" VALUE="" TYPE="DECIMATOR"/>
<RESOURCE NAME="Global_IN_0" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_IN_1" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_IN_2" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_IN_3" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_IN_4" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_IN_5" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_IN_6" VALUE="" TYPE="GLOBAL_BUS"/>
```

FIGURE 3D

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-- REPLACEMENT SHEET --

```
<RESOURCE NAME="Global_IN_7" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_OUT_0" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_OUT_1" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_OUT_2" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_OUT_3" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_OUT_4" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_OUT_5" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_OUT_6" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Global_OUT_7" VALUE="" TYPE="GLOBAL_BUS"/>
<RESOURCE NAME="Port_0_2" VALUE="Global_IN_2" TYPE="PIN"/>
<RESOURCE NAME="Port_0_3_Drive" VALUE="High Z" TYPE="PIN"/>
<RESOURCE NAME="Port_0_4" VALUE="StdCPU" TYPE="PIN"/>
<RESOURCE NAME="Port_0_4_Drive" VALUE="Pull Down" TYPE="PIN"/>
<RESOURCE NAME="Port_0_5" VALUE="StdCPU" TYPE="PIN"/>
<RESOURCE NAME="Port_0_5_Drive" VALUE="Pull Down" TYPE="PIN"/>
<RESOURCE NAME="Port_0_7" VALUE="StdCPU" TYPE="PIN"/>
<RESOURCE NAME="Port_0_7_Drive" VALUE="Pull Down" TYPE="PIN"/>
<RESOURCE NAME="Port_1_0" VALUE="StdCPU" TYPE="PIN"/>
<RESOURCE NAME="Port_1_0_Drive" VALUE="Pull Down" TYPE="PIN"/>
<RESOURCE NAME="Port_1_1" VALUE="Global_OUT_1 (Strong)" TYPE="PIN"/>
<RESOURCE NAME="Port_1_1_Drive" VALUE="Strong" TYPE="PIN"/>
<RESOURCE NAME="vt" VALUE="" TYPE="TEMPERATURE_VOLTAGE"/>
</RESERVED_RESOURCE_LIST>
<GLOBAL_REGISTER_LIST>
<REGISTER NAME="AnalogClockSelect" VALUE="0" ADDR="161"/>
<REGISTER NAME="AnalogColumnClockSelect" VALUE="0" ADDR="161"/>
```

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-- REPLACEMENT SHEET --

```
<REGISTER NAME="AnalogColumnInputSelect" VALUE="28" ADDR="60"/>
<REGISTER NAME="AnalogIOControl" VALUE="0" ADDR="62"/>
<REGISTER NAME="AnalogModulatorControl" VALUE="0" ADDR="163"/>
<REGISTER NAME="AnalogReferenceControl" VALUE="5" ADDR="63"/>
<REGISTER NAME="AnalogSyncControl" VALUE="0" ADDR="65"/>
<REGISTER NAME="DecimatorControl" VALUE="0" ADDR="e6"/>
<REGISTER NAME="OscillatorControl_1" VALUE="40" ADDR="1e1"/>
<REGISTER NAME="Port_0_Bypass" VALUE="4" ADDR="2"/>
<REGISTER NAME="Port_0_DriveMode_0" VALUE="0" ADDR="100"/>
<REGISTER NAME="Port_0_DriveMode_1" VALUE="4" ADDR="101"/>
<REGISTER NAME="Port_1_Bypass" VALUE="2" ADDR="6"/>
<REGISTER NAME="Port_1_DriveMode_0" VALUE="2" ADDR="104"/>
<REGISTER NAME="Port_1_DriveMode_1" VALUE="0" ADDR="105"/>
<REGISTER NAME="Port_2_Bypass" VALUE="0" ADDR="a"/>
<REGISTER NAME="Port_2_DriveMode_0" VALUE="0" ADDR="108"/>
<REGISTER NAME="Port_2_DriveMode_1" VALUE="0" ADDR="109"/>
<REGISTER NAME="Port_3_Bypass" VALUE="0" ADDR="e"/>
<REGISTER NAME="Port_3_DriveMode_0" VALUE="0" ADDR="10c"/>
<REGISTER NAME="Port_3_DriveMode_1" VALUE="0" ADDR="10d"/>
<REGISTER NAME="Port_4_Bypass" VALUE="0" ADDR="12"/>
<REGISTER NAME="Port_4_DriveMode_0" VALUE="0" ADDR="110"/>
<REGISTER NAME="Port_4_DriveMode_1" VALUE="0" ADDR="111"/>
<REGISTER NAME="Port_5_Bypass" VALUE="0" ADDR="16"/>
<REGISTER NAME="Port_5_DriveMode_0" VALUE="0" ADDR="114"/>
<REGISTER NAME="Port_5_DriveMode_1" VALUE="0" ADDR="115"/>
```

FIGURE 3F

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-- REPLACEMENT SHEET --

```
<REGISTER NAME="VoltageMonitorControl" VALUE="84" ADDR="1e3"/>
</GLOBAL_REGISTER_LIST>
<PIN_DESC_LIST>
<PIN_DESC PIN_NUMBER="1" PIN_LABEL="P0[7]" PIN_SELECT="Std4CPU" PIN_DRIVE="Pull Down"/>
<PIN_DESC PIN_NUMBER="2" PIN_LABEL="P0[5]" PIN_SELECT="Std4CPU" PIN_DRIVE=" Pull Down"/>
<PIN_DESC PIN_NUMBER="3" PIN_LABEL="P1[1]" PIN_SELECT="Global_OUT_1 (Strong)" PIN_DRIVE="Strong"/>
<PIN_DESC PIN_NUMBER="4" PIN_LABEL="VSS" PIN_SELECT="" PIN_DRIVE=""/>
<PIN_DESC PIN_NUMBER="5" PIN_LABEL="P1[0]" PIN_SELECT="Std4CPU" PIN_DRIVE=" Pull Down"/>
<PIN_DESC PIN_NUMBER="6" PIN_LABEL="P0[2]" PIN_SELECT="Global_IN_2" PIN_DRIVE="High Z"/>
<PIN_DESC PIN_NUMBER="7" PIN_LABEL="P0[4]" PIN_SELECT="Std4CPU" PIN_DRIVE=" Pull Down"/>
<PIN_DESC PIN_NUMBER="8" PIN_LABEL="VCC" PIN_SELECT="" PIN_DRIVE=""/>
```

FIGURE 3G

Cypress Semiconductor Corporation
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-- **REPLACEMENT SHEET** --

```
<?xml version="1.0"?>
<xsl:stylesheet xmlns:xsl="http://www.w3.org/TR/WD-xsl>
<xsl:template match="/">

<HTML><HEAD>
    <STYLE>
        DIV.page { page-break-before: always }
    </STYLE>
</HEAD>
<BODY>
<TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
    <TR><TD>
        <DIV STYLE="media=print; font-family:Tahoma,Arial,sans-serif; font-size:12pt; color:blue; text-
align:center; letter-spacing:6px; font-weight:bold">
            PSoC Designer Configuration Sheet
        </DIV>
    </TD></TR>
    <TR>
        <TD><IMG SRC="cyp.jpg" ALIGN="LEFT" WIDTH="250"/></TD>
    </TR>
    <TD>
        <TD><TABLE BORDER="0" CELLSPACING="0">
            <xsl:for-each select="//PSOC_CONFIG_LIST/PSOC_CONFIG">
                <TR><TD>
                    <DIV STYLE="media=print; font-family:Tahoma,Arial,sans-serif; font-size:10pt; color:black;
text-align:center; letter-spacing:6px; font-weight:bold">
                        <xsl:apply-templates select="@NAME"/>
                    </DIV>
                </TR></TD>
                <TR>
                    <TD><xsl:apply-templates select="@BASE_DEVICE"/></TD>
                </TR>
                <TR><TD>
                    <DIV STYLE="media=print; font-family:Tahoma,Arial,sans-serif; font-size:10pt; color:black;
text-align:center; letter-spacing:6px; font-weight:bold">
                        <xsl:value-of select="@CONFIG_SAVE_DATE"/>
                    </DIV>
```

FIGURE 4A

Cypress Semiconductor Corporation
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-- **REPLACEMENT SHEET** --

```
                   </TD></TR>
               </xsl:for-each>
           </TABLE></TD>

       </TR>
   </TABLE>
   <TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
       <TR ALIGN="CENTER">
           <xsl:for-each select="//USER_MODULES_LIST/USER_MODULE">
               <TD><IMG>
               <xsl:attribute name;"src">
               <xsl:value-of select="@NAME" />_icon.gif

               </xsl:attribute>
               </IMG></TD>

           </xsl:for-each>

       </TR>
   </TABLE>
   <P></P>
   <TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
       <DIV STYLE="media:print;font-family:Tahoma,Arial,sans-serif; font-size:10pt; color:blue; text-align:center;
letter-spacing:6px; font-weight:bold">
           Signal Pin Table
       </DIV>
       <TR><TD WIDTH="320">
           <TABLE BORDER="1" CELLSPACING="0" ALIGN="CENTER">
               <TR ALIGN="CENTER">
                   <TD>Pin#</TD>
                   <TD>Label</TD>
                   <TD>Select</TD>
                   <TD>Drive</TD>
               </TR>
               <xsl:for-each select="PIN_DESC_LIST/PIN_DESC">
                   <TR ALIGN="CENTER">
                       <TD><xsl:apply-templates select="@PIN_NUMBER"/></TD>
                       <TD><xsl:apply-templates select="@PIN_LABEL"/></TD>
                       <TD><xsl:apply-templates select="@PIN_SELECT"/></TD>
                       <TD><xsl:apply-templates select="@PIN_DRIVE"/></TD>

                   </TR>
               </xsl:for-each>
           </TABLE>

       </TD>
       <TD>
           <TABLE BORDER="0" CELLSPACING="0">
               <TR>
                   <TD><IMG SRC="part.jpg"/></TD>
               </TR>
```

FIGURE 4B

Cypress Semiconductor Corporation
System and Method for Dynamically Generating a Configuration Datasheet
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Cypress Docket No.: CD01174   Sheet 17 of 28
-- REPLACEMENT SHEET --

```
      </TABLE>
    </TD></TR>
</TABLE>
<P/>
<P></P>
<TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
<DIV STYLE="media=print; font-family:Tahoma,Arial,sans-serif; font-size:10pt; color:blue; text-align:center;
letter-spacing:6px; font-weight:bold">
    Selected Global Parameters
</DIV>
<TR>
    <TD>NAME</TD>
    <TD>Value</TD>
</TR>
<xsl:for-each select="GLOBAL_RESOURCE_LIST/RESOURCE">
    <TR>
        <TD><xsl:apply-templates select="@NAME"/></TD>
        <TD><xsl:apply-templates select="@VALUE"/></TD>
    </TR>
</xsl:for-each>
</TABLE>
<xsl:for-each select="//USER_MODULE_LIST/USER_MODULE">
<DIV CLASS="page">
<BR/><BR/><BR/>
</DIV>
<TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
<TR><TD>
<TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
<TR><TD ALIGN="CENTER">
<DIV STYLE="media=print; font-family:Tahoma,Arial,sans-serif; font-size:12pt;
color:blue; text-align:center; letter-spacing:6px; font-weight:bold">
    Selected Global Parameters
    <xsl:value-of select="@NAME"/>
</DIV>
</TD></TR>
<TR>
<TD><IMG SRC=cyp.jpg ALIGN="LEFT" WIDTH="350"/></TD>
</TR>
</TABLE></TD>
<TR><TD><IMG
<TABLE BORDER="0" CELLSPACING="0" ALIGN="CENTER">
        <xsl:attribute name="src">
            <xsl:value-of select="@NAME" />_icon.gif
        </xsl:attribute>
```

FIGURE 4C

```
          </IMG></TD></TR>

      </TABLE>

</TABLE>
<TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
  <TR><TD><IMG>
      <xsl:attribute name="src">
          <xsl:value-of select="@NAME" />_block.gif
      </xsl:attribute>
  </IMG></TD></TR>
</TABLE>
</P>
<TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
<DIV STYLE="media=print; font-family:Tahoma,Arial,sans-serif; font-size:12pt; color:blue; text-
align:center; letter-spacing:6px; font-weight:bold">
    Parameters

</DIV>
    <TR STYLE="media=print; font-family:Tahoma,Arial,sans-serif; font-size:10pt; color:red; text-align:center;
    letter-spacing:6px; font-weight:bold">
        <TD>Parameters</TD>
        <TD>Value</TD>
    </TR>
<xsl:for-each select="PARAMETER_LIST/PARAMETER">
    <TR>
        <TD><xsl:apply-templates select="@NAME"/></TD>
        <TD><xsl:apply-templates select="@VALUE"/></TD>
    </TR>
</xsl:for-each>

</TABLE>
<BR/>
<TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
<DIV STYLE="media=print; font-family:Tahoma,Arial,sans-serif; font-size:12pt; color:blue; text-
align:center; letter-spacing:6px; font-weight:bold">
    Blocks

</DIV>
<xsl:for-each select="SHAPE">
<xsl:for-each select="BLOCK_LIST/BLOCK">
    <TR/><TR/><TR/>
    <TR STYLE="media=print; font-family:Tahoma,Arial,sans-serif; font-size:10pt; color:red; text-
        align:center; letter-spacing:9px; font-weight:bold">
        <TD>
```

FIGURE 4D

Cypress Semiconductor Corporation
System and Method for Dynamically Generating a Configuration Datasheet
Inventors: Douglas H. Anderson et al.
Cypress Docket No.: CD01174   Sheet 19 of 28
-- REPLACEMENT SHEET --

```
<DIV STYLE="media=print; font-family:Tahoma,Arial,sans-serif; font-size:12pt;
          color:blue; text-align:center; letter-spacing:6px; font-weight:bold">
          Block

</DIV>
<TD>Type</TD>
<TD>Location</TD>
</TR>
<TR>

<TD><xsl:apply-templates select="@NAME"/></TD>
<TD><xsl:apply-templates select="@ADDR"/></TD>
<TD><xsl:apply-templates select="@VALUE"/></TD>

</TR>
<TR STYLE="media=print; font-family:Tahoma,Arial,sans-serif; font-size:10pt; colorized; text-
          align:center; letter-spacing:6px; font-weight:bold">
<TD>Registers</TD>
<TD>Address</TD>
<TD>Value</TD>

</TR>
<xsl:for-each select="REGISTER_LIST/REGISTER">
<TR>

<TD><xsl:apply-templates select="@NAME"/></TD>
<TD><xsl:apply-templates select="@ADDR"/></TD>
<TD><xsl:apply-templates select="@VALUE"/></TD>

</TR>
</xsl:for-each>
<TR HEIGHT="10"/>

</xsl:for-each>
</TABLE>
<DIV CLASS="page">
<BR/><BR/><BR/>

</DIV>
<TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
<TR><TD>
<TABLE BORDER="0" CELLSPACING="0">
<TR><TD><IMG SRC="cyp.jpg" ALIGN="LEFT" WIDTH="350"/></TD></TR>
</TABLE>

</TD>
<TD>
<DIV STYLE="media=print; font-family:Tahoma,Arial,sans-serif;
```

FIGURE 4E

Cypress Semiconductor Corporation
System and Method for Dynamically Generating a Configuration Datasheet
Inventors: Douglas H. Anderson et al.
Cypress Docket No.: CD01174   Sheet 20 of 28
-- REPLACEMENT SHEET --

```
                font-size:16pt; color:blue; text-align:center; letter-spacing:6px; font-weight:bold">
                Appendix
              </DIV>
            </TD></TR>
          </TABLE>
        </TD></TR>
    </TABLE>
  <P></P>
  <TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
    <DIV STYLE="media=print;font-family:Takoma,Arial,sans-serif; font-size:12pt; color:blue; text-align:center;
                letter-spacing:6px; font-weight:bold">
                Pin
    </DIV>
    <TR>
      <TD>Name</TD>
      <TD>Value</TD>
    </TR>
    <xsl:for-each select="//RESERVED_RESOURCE_LIST/RESOURCE">
      <xsl:if match="RESOURCE[@TYPE=' PIN' ]">
        <TR>
          <TD><xsl:apply-templates select="@NAME"/></TD>
          <TD><xsl:apply-templates select="@VALUE"/></TD>
        </TR>
      </xsl:if>
    </xsl:for-each>
  </TABLE>
  <P></P>
  <TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
    <DIV STYLE="media=print;font-family:Takoma,Arial,sans-serif; font-size:12pt; color:blue; text-align:center;
                letter-spacing:6px; font-weight:bold">
                Analog Clocks
    </DIV>
    <TR><TD>Name</TD>
      <TD>Value</TD>
    </TR>
    <xsl:for-each select="//RESERVED_RESOURCE_LIST/RESOURCE">
      <xsl:if match="RESOURCE[@TYPE=' ANALOG_CLOCK_SELECT' ]">
        <TR>
          <TD><xsl:apply-templates select="@NAME"/></TD>
          <TD><xsl:apply-templates select="@VALUE"/></TD>
        </TR>
      </xsl:if>
    </xsl:for-each>
    <xsl:for-each select="//RESERVED_RESOURCE_LIST/RESOURCE">
      <xsl:if match="RESOURCE[@TYPE=' ANALOG_COLUMN_CLOCK_MUX' ]">
```

FIGURE 4F

Cypress Semiconductor Corporation
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-- **REPLACEMENT SHEET** --

```
          <TR>

            <TD><xsl:apply-templates select="@NAME"/></TD>
            <TD><xsl:apply-templates select="@VALUE"/></TD>

          </TR>

      </xsl:if>

  </xsl:for-each>

</TABLE>
<P></P>
<TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
  <DIV STYLE="media-print;font-family:Takoma,Arial,sans-serif; font-size:12pt; color:blue; text-align:center;
    letter-spacing:6px; font-weight:bold">
    Analog Buffer Output
  </DIV>
  <TR>

    <TD>Name</TD>
    <TD>Value</TD>

  </TR>
  <xsl:for-each select="//RESERVED_RESOURCE_LIST/RESOURCE">
    <xsl:if match="RESOURCE[@TYPE='ANALOG_DRIVER']">
      <TR>

        <TD><xsl:apply-templates select="@NAME"/></TD>
        <TD><xsl:apply-templates select="@VALUE"/></TD>

      </TR>

    </xsl:if>

  </xsl:for-each>

</TABLE>
<P></P>
<TABLE BORDER="1" CELLSPACING="0" WIDTH="640">
```

FIGURE 4G

Cypress Semiconductor Corporation
System and Method for Dynamically Generating a Configuration Datasheet
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-- REPLACEMENT SHEET --

```
<DIV STYLE="media=print;font-family:Tahoma,Arial,sans-serif; font-size:12pt; color:blue; text-align:center;
           letter-spacing:6px; font-weight:bold">
           Global Register Values

    </DIV>
    <TR>

        <TD>Name</TD>
        <TD>Address</TD>
        <TD>Value</TD>

    </TR>
    <xsl:for-each select="/RESERVED_RESOURCE_LIST/RESOURCE">
        <TR>

            <TD><xsl:apply-templates select="@NAME"/></TD>
            <TD><xsl:apply-templates select="@ADDR"/></TD>
            <TD><xsl:apply-templates select="@VALUE"/></TD>

        </TR>

    </xsl:for-each>

</TABLE>
</BODY>
    </HTML>
<xsl:template match="@NAME">
        <B><xsl:value-of/></B>

</xsl:template>

<xsl:template match="@VALUE">
        <xsl:value-of/>

</xsl:template>

<xsl:template match="@INSTANCE_NAME">
        <B><xsl:value-of/></B>

</xsl:template>

<xsl:template match="@SOURCE_GEN_TIME">
        <xsl:value-of/>

</xsl:template>

<xsl:template match="@BASE_DEVICE">
        <DIV STYLE="media=print;font-family:Tahoma,Arial,sans-serif; font-size:12pt; color:blue; text-align:center;
                   letter-spacing:6px; font-weight:bold"><xsl:value-of/></DIV>

    </DIV>

</xsl:template>

<xsl:template match="@TYPE">
        <xsl:value-of/>

</xsl:template>
```

FIGURE 4H

Cypress Semiconductor Corporation
System and Method for Dynamically Generating a Configuration Datasheet
Inventors: Douglas H. Anderson et al.
Cypress Docket No.: CD01174   Sheet 23 of 28
-- REPLACEMENT SHEET --
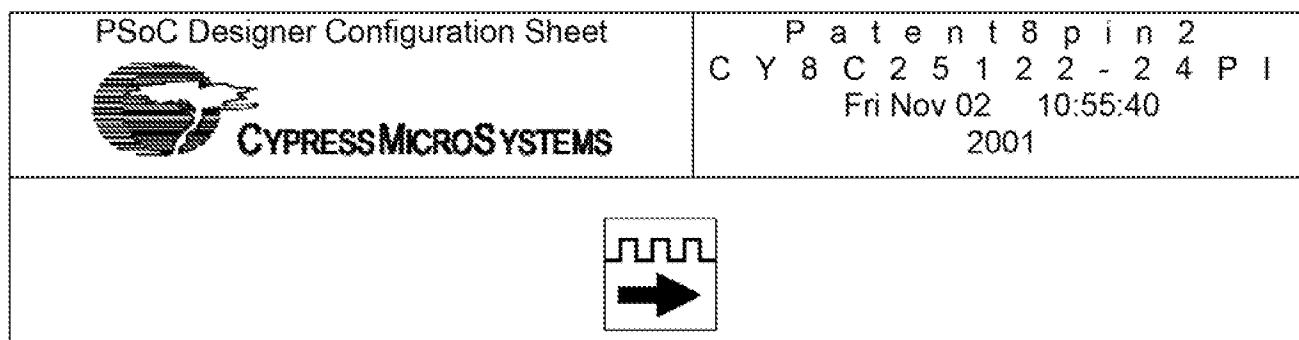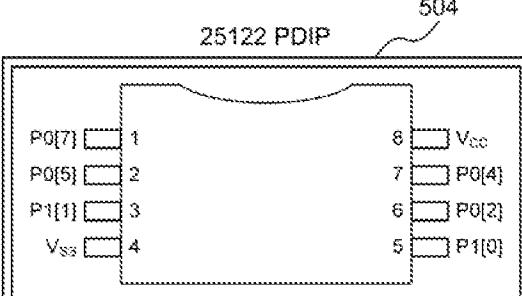
```
<xsl:template match="@LOCATION">
    <xsl:value-of/>
</xsl:template>

<xsl:template match="@REGISTER_NAME">
    <B><xsl:value-of/></B>
</xsl:template>

<xsl:template match="@REGISTER_VALUE">
    <xsl:value-of/>
</xsl:template>

<xsl:template match="@ADDR">
    <xsl:value-of/>
</xsl:template>

<xsl:template match="@PIN_NUMBER">
    <xsl:value-of/>
</xsl:template>

<xsl:template match="@PIN_LABEL">
    <xsl:value-of/>
</xsl:template>

<xsl:template match="@PIN_SELECT">
    <xsl:value-of/>
</xsl:template>

<xsl:template match="@PIN_DRIVE">
    <xsl:value-of/>
</xsl:template>

</xsl:stylesheet>
```

FIGURE 4I

Cypress Semiconductor Corporation
System and Method for Dynamically Generating a Configuration Datasheet
Inventors: Douglas H. Anderson et al.
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-- REPLACEMENT SHEET --

PSoC Designer Configuration Sheet	P a t e n t 8 p i n 2
CYPRESSMICROSYSTEMS	C Y 8 C 2 5 1 2 2 - 2 4 P I
	Fri Nov 02 10:55:40
	2001

Signal Pin Table 503
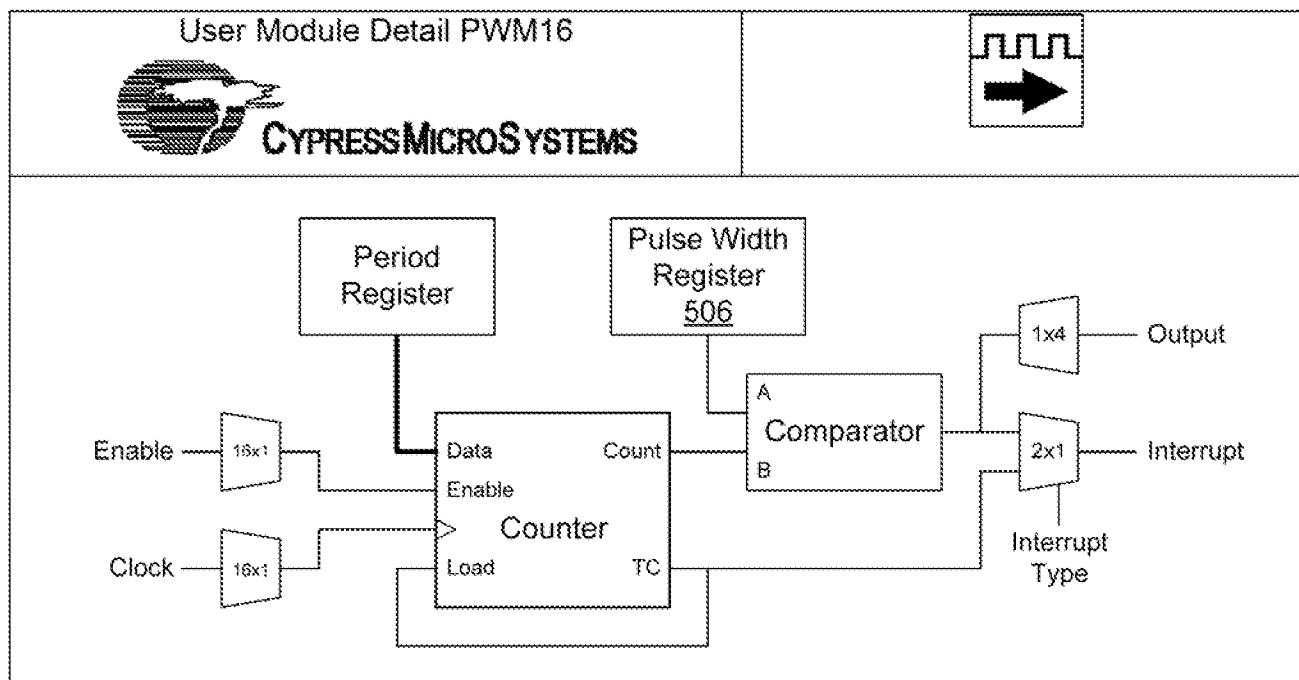
Pin#	Label	Select	Drive
1	P0[7]	StdCPU	Pull Down
2	P0[5]	StdCPU	Pull Down
3	P1[1]	Global_OUT_1 (Strong)	Strong
4	VSS		
5	P1[0]	StdCPU	Pull Down
6	P0[2]	Global_IN_2	High Z
7	P0[4]	StdCPU	Pull Down
8	VDD		

25122 PDIP   504

P0[7] 1   8 Vcc
P0[5] 2   7 P0[4]
P1[1] 3   6 P0[2]
Vss   4   5 P1[0]

Selected Global Parameters 505

Name	Value
24V1=24MHz/N	5
24V2=24V1/N	1
32K_Select	Internal
A_Buff_Power	Low
Analog Power	SC On/Ref Low
CPU_Clock	12_MHz
Op-Amp Bias	Low
PLL_Mode	Disable
Ref Mux	Vcc/2)+/-Bandgap
Sleep_Timer	512_Hz
SwitchModePump	OFF
VoltMonRange	5.0V
VoltMonThreshold	80%

FIGURE 5A

Cypress Semiconductor Corporation
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-- REPLACEMENT SHEET --

User Module Detail PWM16

CYPRESSMICROSYSTEMS

Period Register

Pulse Width Register 506

1x4 — Output

A Comparator B

2x1 — Interrupt

Enable — 16x1

Clock — 16x1

Counter

Data Count
Enable
Load TC

Interrupt Type

Parameters 507

Parameters	Value
Clock	24V2
CompareType	Compare Less Than Or Equal
Enable	Global_IN_2
InterruptType	Terminal Count
Output	Global_OUT_1
Period	134
PulseWidth	92

FIGURE 5B

Cypress Semiconductor Corporation
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-- **REPLACEMENT SHEET** --

Blocks <u>508</u>

Block	Type	Location
PWM16_LSB	Digital	0
Registers	Address	Value
CONTROL_0	23	0
DATA_0	20	0
DATA_1	21	86
DATA_2	22	5c
DIG_BasicFunction	120	1
DIG_Input	121	E6
DIG_Output	122	0
Block	Type	Location
PWM16_MSB	Digital	1
Registers	Address	Value
CONTROL_0	27	0
DATA_0	24	0
DATA_1	25	0
DATA_2	26	0
DIG_BasicFunction	124	21
DIG_Input	125	36
DIG_Output	126	5

FIGURE 5C

Cypress Semiconductor Corporation
System and Method for Dynamically Generating a Configuration Datasheet
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-- REPLACEMENT SHEET --

	Appendix

Pin 509

Name	Value
Port_0_2	Global_IN_2
Port_0_2_Drive	High Z
Port_0_4	StdCPU
Port_0_4_Drive	Pull Down
Port_0_5	StdCPU
Port_0_5_Drive	Pull Down
Port_0_7	StdCPU
Port_0_7_Drive	Pull Down
Port_1_0	StdCPU
Port_1_0_Drive	Pull Down
Port_1_1	Global_OUT_1 (Strong)
Port_1_1_Drive	Strong

Analog Clocks 510

Name	Value
AnalogClock_0_Select	
AnalogClock_1_Select	
AnalogColumn_Clock_0	24VI
AnalogColumn_Clock_1	24VI
AnalogColumn_Clock_2	24VI
AnalogColumn_Clock_3	24VI

Analog Input MUX 511

Name	Value
AnalogColumn_InputMUX_0	Port_0_1
AnalogColumn_InputMUX_1	Port_0_4
AnalogColumn_InputMUX_2	Port_0_5
AnalogColumn_InputMUX_3	Port_0_0

FIGURE 5D

Cypress Semiconductor Corporation
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-- REPLACEMENT SHEET --

Analog Buffer Output 512

Name	Value
AnalogOutBuf_0	OFF
AnalogOutBuf_1	OFF
AnalogOutBuf_2	OFF
AnalogOutBuf_3	OFF

Global Register Values 514

Name	Address	Value
AnalogClockSelect	161	0
AnalgoColumnClockSelect	160	0
AnalogColumnInputSelect	60	28
AnaloglOControl	162	0
AnalogModulatorControl	163	0
AnalogReferenceControl	63	5
AnalogSyncControl	65	0
DecimatorControl	36	0
OscillatorControl_1	1e1	40
Port_0_Bypass	2	4
Port_0_DriveMode_0	100	0
Port_0_DriveMode_1	101	4
Port_1_Bypass	6	2
Port_1_DriveMode_0	104	2
Port_1_DriveMode_1	105	0
Port_2_Bypass	A	0
Port_2_DriveMode_0	108	0
Port_2_DriveMode_1	109	0
Port_3_Bypass	E	0
Port_3_DriveMode_0	10c	0
Port_3_DriveMode_1	10d	0
Port_4_Bypass	12	0
Port_4_DriveMode_0	110	0
Port_4_DriveMode_1	111	0
Port_5_Bypass	16	0
Port_5_DriveMode_0	114	0
Port_5_DriveMode_1	115	0
VoltageMonitorControl	1e3	84

FIGURE 5D